REMARKS

These remarks are in response to the Office Action dated July 6,2006. Applicants have canceled claims 3, 6 and 7. Claims 5 and 15-27 are withdrawn. Such actions do not compromise or prejudice Applicants' right to prosecute the canceled and/or withdrawn subject matter in any divisional, continuation, continuation-in-part or other application. Applicants have amended claims 1, 2, 4 and 8. Support for the amendments can be found throughout the specification and claims as originally filed.

No new matter is believed to have been introduced. Claims 1, 2, 4, and 8-14 are pending and at issue. Applicants request reconsideration of the pending claims.

Rejections Under 35 U.S.C. §112, first paragraph

Enablement

Claims 8-14 stand rejected under 35 U.S.C. §112, first paragraph, as allegedly lacking enablement. While Applicants respectfully traverse this rejection, it is submitted that the amendments to claim 1, from which claims 8-14 ultimately depend, place the pending claims in condition for allowance.

Independent claim 1, from which claims 8-14 depend, has been amended to recite specific isolated polypeptides having particular amino sequences. Applicants note that the amendments to claim 1 were made in order to expedite prosecution of the pending claims and should not be interpreted as a general disclaimer of the territory between the original claim and the amended claim.

Applicants submit that the polypeptides of claim 1 are suitable for generating antibodies under various conditions, including in vivo conditions. The specification describes compositions (carriers, adjuvants, etc.) that include such polypeptides and teaches that the composition can be used to induce an immune system, e.g., to produce antibodies which will serve to vaccinate the host against a Gram negative bacterial infection without causing the disease itself. Specific pharmaceutically acceptable carriers are described as are suitable modes of administration for generating the immune response. The specification teaches that the polypeptide can be made using routine polypeptide synthesis techniques. However, the specification fails to include an example of an immune response resulting from the

injection of the polypeptide into a mammal. Nevertheless, Applicants submit that it would be routine in the art of immunology and molecular biology to generate an immune response in an animal using a polypeptide as defined in claim 1 in a vaccine. Subsequently challenging the animal with a Gram negative infection would also be routine. One skilled in the art could produce a polypeptide that can elicit an immune response from an animal using the present specification coupled with standard immunological techniques known in the art without undue experimentation.

In view of the above discussion, it is respectfully submitted that the present specification provides support for subject matter related to claim(s) encompassing vacciness of the invention. Accordingly, Applicants request that the rejection under 35 U.S.C. §112, first paragraph, be withdrawn.

Rejections Under 35 U.S.C. §102(b)

Claims 1-4 and 6-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Myers et al. (US patent No. 6,090,576) ("Myers"). In addition, claims 1-4 and 6-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Loosmore et al. (US patent No. 5,977,337) ("Loosmore"). While Applicants respectfully traverse this rejection, it is submitted that the amendments to claim 1 place the pending claims in condition for allowance.

Applicants have identified those regions of bacterial transferrin-binding proteins (Tbp) that are critical for bacterial recognition of, and binding to, mammalian transferrin. While the sequences of various Tbp's have been identified, the specific peptides critical for Tbp binding to transferrin have not been previously identified. A subset of these peptides is defined in amended claim 1. While the cited references may disclose a "parent" amino acid sequence that contains all or a portion of the claimed sequences, the cited references fail to identify the specific peptides as set forth in claim 1 or the characteristics which make such peptides distinguishable from the parent protein. The disclosure of the chemical genus does not generally constitute an anticipation of the compound or species falling within the genus unless the specific species is also disclosed. Imperial Chem. Indus;, PLC v. Henkel Corp., 545 F. Supp. 635, 646, (D. Del. 1982). Applicants submit that, while the claimed polypeptides may represent species of previously identified sequences, the

polypeptides of the present invention represent species that are patentably distinguishable from the cited references.

In light of the above, Applicants request that this rejection under 35 U.S.C. §102(b) be withdrawn.

CONCLUSION

In summary, for the reasons set forth herein, Applicants maintain that claims 1, 2, 4, and 8-14 clearly and patentably define the invention. Applicants request that the Examiner reconsider and withdraw the various grounds for rejection set forth in the Office Action.

If the Examiner would like to discuss any of the issues raised in the Office Action, Applicants' representative can be reached at (858) 509-7300. Enclosed herewith is a request for a three-month extension of time, along with the required fee. Should any additional fees be required, the Commissioner is authorized to charge deficiencies or credit any overpayment to Deposit Account No. 02-4800.

Respectfully submitted,

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Date: January 5, 2007

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